

* SPECIAL REPORT *
AGRICULTURAL PRODUCTION IN
THE DAIRYLAND POWER COOPERATIVE AREA

FOREWARD

This report is primarily concerned with the value of agricultural production in the area served by the Dairyland Power Cooperative. There are no county data on value of products sold or traded more recent than that contained in the 1940 census. An estimated 1945 value is shown in the report. The more recent values of 1945 reflect present day conditions.

GENERAL BACKGROUND STATEMENT: The Dairyland Power Cooperative serves an area which includes thirty two counties in western Wisconsin, ten in northeastern Iowa, eight in southeastern Minnesota and two in northwestern Illinois. In land area this group of counties is 85% the size of Wisconsin. It has three fourths as many farms as are found in the state of Wisconsin. The land area is about 25 million acres, of which more than 20 million acres is in the 133,000 farms of the area. The attached map shows the counties served and the types of farming in the area. (Figure 1) In general this is a stable, productive and progressive agricultural area of the nation where farming is well adapted to climate and soil resources, and where agriculture sustains a fairly high standard of living. The soils in this area vary widely from the black and brown productive soils in areas 1, 2, 3, and 4 (Iowa and Minnesota) to the sands in area 12 (Wisconsin) which are low in fertility and productivity. Topography also varies widely from level areas to sharply rolling and steep areas along the Mississippi River. Farm cooperative experience in this area has been extensive.

TYPES OF FARMING: Dairying is the principal source of income on two thirds of the farms. Livestock farms are second in importance, with livestock the principal source of income on slightly more than 10 percent of the farms. Cash receipts from livestock in this area constituted 17.1 percent of all livestock in Wisconsin, Iowa and Minnesota, or 4.2 percent of all livestock receipts in the United States. It is evident from the comparison of receipts in this area with those of Wisconsin, Iowa and Minnesota, and with those of the United States, that this is an important dairy, livestock, and poultry producing area. Most of the crops grown are feed crops, except that potatoes, tobacco and fruit are especially important in localized areas. Incomes and standards of living are comparatively high. The 1945 average gross receipts from farm marketings were approximately \$4699 in this area, as compared with \$3460 for the United States.

VALUE OF AGRICULTURAL PRODUCTION: The value of agricultural production by commodities (Tables 1 and 2) show the estimated 1945 values for various commodities in the area served by the Dairyland Power Cooperatives. There is also a comparison with the commodity values for the United States and the three state area of Wisconsin, Iowa and Minnesota as reported by the Bureau of Agricultural Economics. The basis of calculation of the 1945 estimated production is explained in a later section of the report.

Inspection of the tabular measurements of the agricultural importance of the area reveals that in 1945 the dairy production of this area, in terms of cash receipts amounted to 31.6 percent of all dairy production in the Wisconsin, Iowa and Minnesota. This was equivalent to 7.2 percent of all dairy production in the United States. A significant fact not disclosed by these figures is the importance of the dairy products manufactured in the area. In the five year period 1935-39, this area produced approximately 24 percent of all cheese processed in the United States. It also produced about 11 percent of all the creamery butter, 10 percent of all condensed and powdered milk and 8 percent of all the ice cream manufactured in the United States.

In the period since 1939 there has been a reduction in the production of creamery butter, and an increase in the manufacture of evaporated and condensed milk, and cheese throughout the dairy sections of the United States. The great proportion of the increase in evaporated and condensed milk has occurred in this area.

MARKET OUTLETS AND TRANSPORTATION FACILITIES:

Most of the dairy production of this area is processed in the area,

Figures 2, 3, and 4, which show the number of cheese factories, creameries and drying plants in the United States in specified years, indicate that a large proportion of these plants are located in and near the Dairyland Power Cooperative Area. At the present time there are approximately 850 cheese factories, 470 creameries and 80 drying plants in the area. The bottled milk outlet for the area is limited to supplying the villages and the few cities of the area. The area is almost entirely outside the Chicago milk shed.

Excellent livestock marketing facilities are available in Chicago, South St. Paul, Milwaukee and Cudahy, as well as at the small local markets scattered through the area. Milwaukee, Cudahy, Chicago and South St. Paul are the leading markets for cattle and sheep, with other markets taking but a small portion of the total. These markets and the Madison market receive most of the hogs produced in the area. Poultry and eggs are marketed at local produce houses by farmers; the local produce houses ship almost entirely to Chicago.

Peas and corn for canning are the principal truck crops, and they are processed by local canneries near the center of production. The fresh vegetable outlets are limited.

Ten main line railroads link the Dairyland Power Cooperative Area with the large markets of the nation. The area has an excellent highway system, providing easy access to markets.

Rochester, Minnesota is the only air line stop in the area. The air routes between Chicago and St. Paul, St. Paul and Milwaukee, and St. Paul and Kansas City pass over the area.

FUTURE POSSIBILITIES OF AGRICULTURE IN THE AREA: An indication of the future of agricultural production in the

North Central Region of which this area is part is given in the report prepared by the Interbureau Committee on Postwar Programs, in cooperation with the land-grant colleges. This report is based on data and findings of the State Production Adjustment Committees. These estimates are first approximations of the potential of the agricultural sector in a national peacetime economy geared to full production. They provide a picture of the directions and general extent of adjustments that would be profitable for farmers under certain conditions of postwar prosperity. The general assumptions include a large volume of international trade, full employment, a national income of \$150 billion, and a cash index of 103, with 1926 equal to 100, and indexes of prices received by and paid by farmers of 160 and 165, respectively, with 1910-14 equal to 100.

Significant factors discussed in this report, which will contribute to increased production include the availability of farm labor and machinery, and increases in stores of supplies. Almost the entire story of the potential expansion of crop production would be due to the further increase in crop production per acre. Such increase would be accomplished through the adoption of improved practices which farmers would find profitable under the assumed conditions, and through shifts in crops produced. Increased efficiency in the production of livestock would account for increases related to that type of farm enterprise. The farms needed to achieve such production would be fewer by about 5 percent and of larger average size than in prewar years. Self sufficing farms would decline, however, part time farms would increase in number. More land would be devoted to sod crops, and less to close growing crops.

The report indicates that under the assumed conditions it would pay farmers of this area to increase dairy production 29.5 percent above the 1943 level. This would be equivalent to a 60 percent increase over the five year prewar average. Increases above the 1943 production for poultry would be 4.5 percent, and the increase for meat animals would be 1.4 percent.

Hay and feed grain production would increase 11 percent, tobacco would increase 37 percent, and truck crops 11 percent. Gross farm production would increase 8.7 percent. The report emphasizes that the estimates represent combined judgements of what it would pay farmers to do if the assumed conditions were to prevail.

In considering the possibility of less favorable economic conditions than those previously mentioned, this report indicates that farm production would approximate wartime levels.

In light of the foregoing background information it may be concluded that agricultural production in this area is not likely to decline in the next few years. The problem of high production at good prices is not one of production, but of markets, distribution and of price relationships. Agricultural prosperity for this area depends on high

national income, and a large volume of international trade. Under economic conditions that result in considerable unemployment and lower national income adjustments would be necessarily made in agricultural production commensurate with shrinking market outlets. In such event farm income in this area would reflect the lower price levels.

BASIS OF CALCULATIONS AND METHODS: The value of agricultural products sold in 1939 in this group of fifty two counties is shown in Tables 1

and 2. The sales for a commodity was obtained as an aggregate of the commodity sales for the counties as reported in the 1940 Census of Agriculture when such information was available. However, it was necessary to estimate several items. The value shown for eggs was estimated as the residual of the given value of poultry products, after deducting the given value of chickens sold, turkeys raised, and ducks raised. It was necessary to assume that the value of turkeys and ducks sold equaled the given value of turkeys and ducks raised since no data on turkey and duck sales were available for these counties. The figures for other livestock products, field crops, truck crops and fruit represent the value of these commodities sold or traded; cash receipts from these commodities were not available on a county basis. The 1945 estimated cash receipts for the counties within each state to the 1939 cash receipts for the state, applied to the 1945 cash receipts for the state as reported by the Bureau of Agricultural Economics. Adjustments were made when the increase as reflected by state data was obviously inapplicable.

TABLE 1—COMPARATIVE DATA ON CASH RECEIPTS FROM LIVESTOCK AND LIVESTOCK PRODUCTS

Income Source	Dairyland Coop. Area		United States 1945 Cash Receipts <u>b/</u>	Dairyland as Per cent of U.S., 1945	Wisconsin, Iowa and Minnesota 1945 Cash Receipts <u>a/</u> 000 dollars	Dairyland as Per cent of U.S., 1945	Wisconsin, Iowa and Minnesota 1945 Cash Receipts <u>a/</u> 000 dollars	Dairyland as Per cent of U.S., 1945	Wisconsin, Iowa and Minnesota 1945 Cash Receipts <u>a/</u> 000 dollars
	1939 from 1940 Census	Estimated 1945							
Dairy Products	77,098	222,250	3,070,380	7.2	703,072	31.6			
Whole Milk	45,808	188,335	2,557,348	7.4	530,225	35.5			
Cream	31,140	33,830	488,941	6.9	172,518	19.6			
Butter	150	85	24,091	.4	329	25.8			
Livestock	77,591	244,296	5,826,105	4.2	1,427,816	17.1			
Hogs and Pigs	39,832	139,124	2,288,136	6.1	787,910	17.7			
Cattle and Calves	35,921	100,398	3,218,788	3.2	600,415	16.7			
Sheep and Lambs	1,838	4,774	319,181	1.4	39,491	12.1			
Poultry Products	16,224	85,338	2,596,709	3.3	420,401	20.3			
Eggs	10,646	57,035	1,463,797	3.9	268,295	21.3			
Chickens	3,710	20,213	860,384	2.3	108,204	18.7			
Turkeys	1,733	7,425	242,569	3.1	39,905	18.6			
Other Poultry	135	665	29,959	2.2	3,997	16.6			
Other Livestock Products	2,196 <u>b/</u>	3,629	232,161	1.6	26,361	13.8			
Total Livestock and Products	173,109	555,513	11,725,355	4.7	2,577,650	21.6			

a/ Source: "The Farm Income Situation," Bureau of Agricultural Economics, April 1946.

b/ Value of other livestock products sold or traded, 1940 Census. Cash receipts from other livestock products not given.

TABLE 2—COMPARATIVE DATA ON CASH RECEIPTS FROM CROPS, AND TOTAL RECEIPTS FROM CROPS AND LIVESTOCK

Income Source	Dairyland Coop. Area	United States	Dairyland as Per cent of U.S., 1945	Wisconsin, Iowa and Minnesota 1945 Cash Receipts ^{a/}	Dairyland as Per cent of Wis., Iowa and Minnesota Receipts ^{a/} 000 dollars
	1939 from 1940	Estimated 1945	Receipts ^{a/} 000 dollars	Receipts ^{a/} 000 dollars	Receipts ^{a/} 000 dollars
Field Crops	21,593	38,296	6,273,524	.6	455,853
All Cereals	c/	26,125	2,464,021	1.1	279,293
Potatoes	c/	4,500	433,871	1.0	21,387
Tobacco	c/	4,253	953,565	.4	8,223
Hay	c/	3,210	205,132	1.6	13,071
Truck Crops	1,608	8,284	1,057,854	.8	45,955
Fruit and Nuts	1,598	2,656	1,342,674	.2	6,933
Horticultural Specialties	1,155	1,876	268,317	.7	14,452
Forest Products	1,254	3,859	116,862	3.3	11,123
Total Crops	27,208	54,971	9,059,231	.6	534,316
Total Receipts from Crops and Livestock	200,317	610,484	20,784,586	2.9	3,111,966

a/ Source: "The Farm Income Situation," Bureau of Agricultural Economics, February 1946.

b/ Value of field crops, truck crops, and fruit, sold or traded, 1940 Census. Cash receipts not given.

c/ No information available on sales of cereals, potatoes, tobacco and hay for this area for 1939.

Type of Farming Areas:

1. Southwest Livestock and Cash Grain-Minnesota
2. South-central Dairy and Livestock
3. Southeast Dairy and Livestock
4. Dairy Area of Iowa
5. Southwestern Mixed Farming Area-Wisconsin
6. Southern Foreign Cheese Area
7. Western Dairy-Tobacco Area
8. Western Dairy-Livestock Area
9. Central Wisconsin General Farming Area
10. North-central Dairy Area
11. Northeastern Dairy-Potato Area
12. Northwestern Dairy-Hay Area
13. Northwestern Dairy Area
14. Mixed Livestock Area

PICTURE 2
FACTORIES
MAKING AMERICAN CHEESE

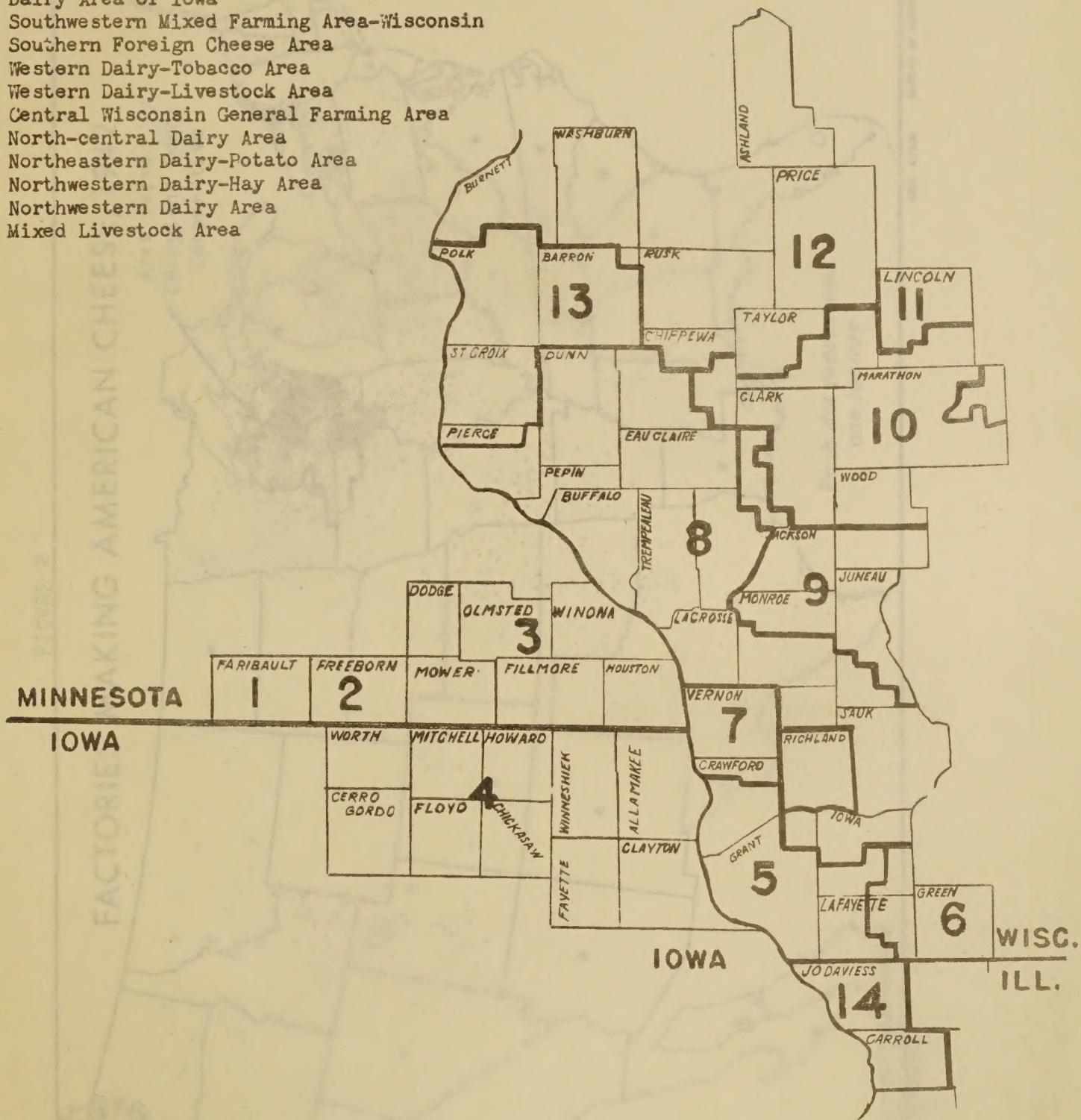


FIGURE 1-AREA TO BE SERVED BY THE DAIRYLAND POWER COOPERATIVE
(Wisconsin 64 Dairyland)
(Wisconsin, Minnesota, Iowa, Illinois)

FIGURE 2

FACTORIES MAKING AMERICAN CHEESE, 1942

Area served by
Dairyland Power
Cooperative

Each dot represents
one factory

*LESS THAN 5 FACTORIES IN STATE

U. S. DEPARTMENT OF AGRICULTURE

NEG. 43430 BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 3

FACTORIES MAKING CREAMERY BUTTER, 1942

Area served by
Dairyland Power
Cooperative

Each dot represents
one factory

* LESS THAN 5 FACTORIES IN STATE

U. S. DEPARTMENT OF AGRICULTURE

NEG. 43417 BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 4

PLANTS MANUFACTURING NONFAT DRY MILK SOLIDS, 1944

Area served by
Dairyland Power
Cooperative

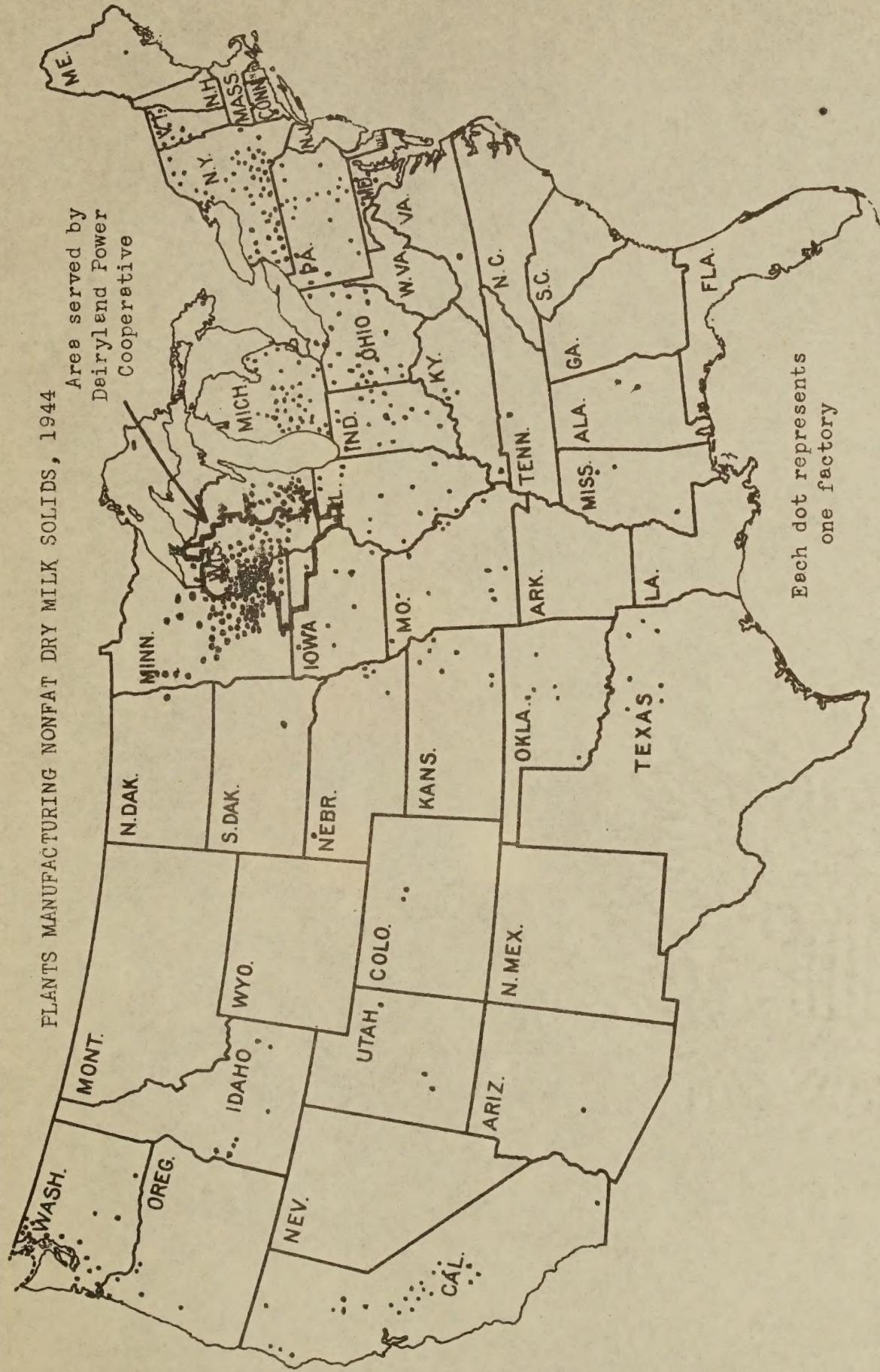
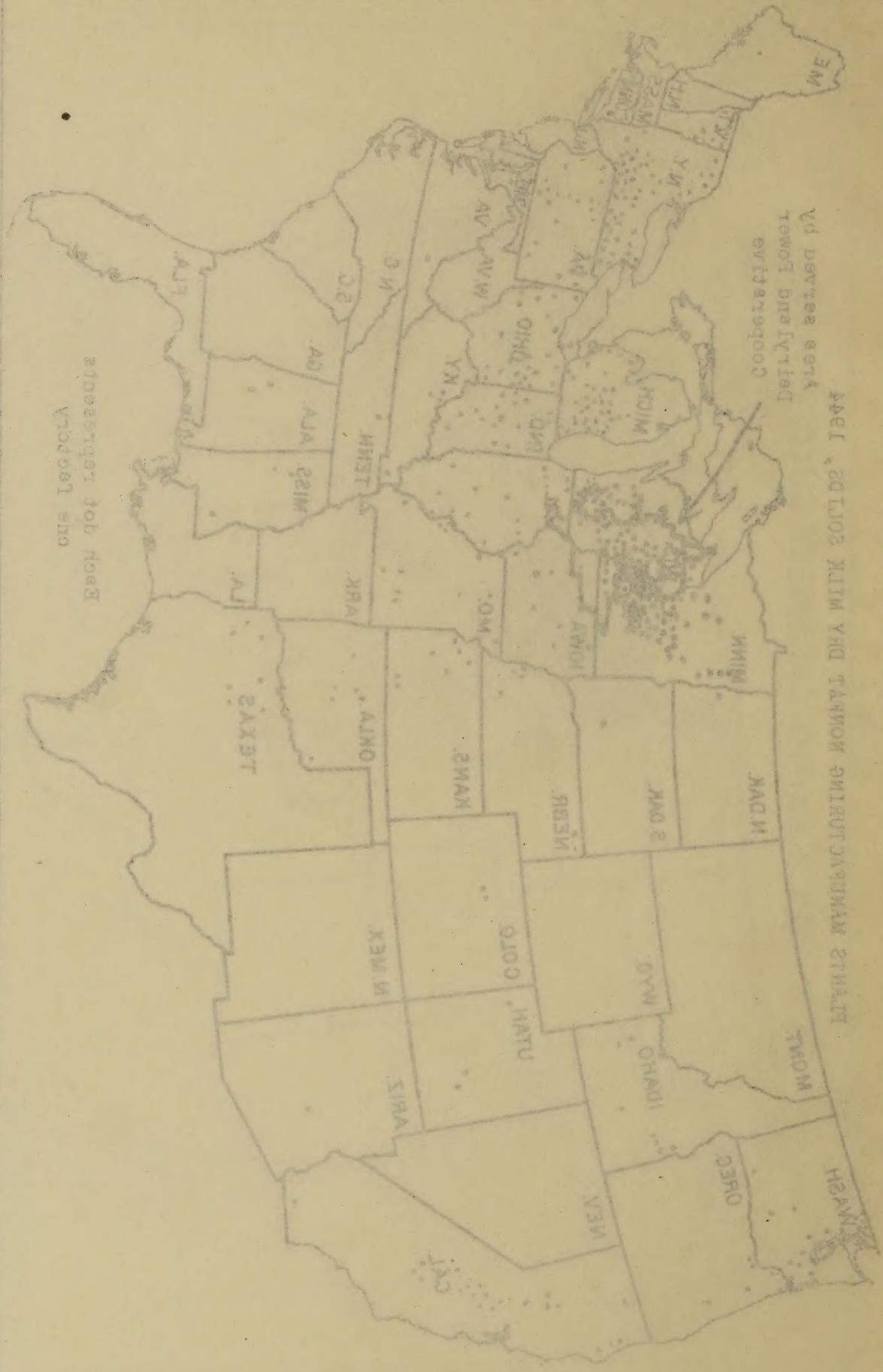


FIGURE A

HILLS MAMMOTH MOUNTAIN STATE PARK

DISTAL BY POWERS
COASTAL PLATEAU

LEES SEAVER PA



LEES SEAVER PLATEAU